

Remarks

Claims 1-4 and 8 continue to be pending in the application.

Claims 1-4 and 8 stand rejected under 35 U.S.C. 103(a) as being unpatentable over *Glenn et al.*, (U.S. Pat. No. 6,528,875) in view of *Uchikoba* (U.S. Pat. No. 6,698,084). The rejection is respectfully traversed.

Independent claim 1 of the subject invention is now amended to recite that a plurality of stacked co-fired layers of ceramic material include a plurality of exposed electrical conductors including leads thereon at predetermined locations, that the conductors include one or more additives to promote adhesion to a ceramic layer on which the conductors are fabricated and a bonding metal layer is applied to the conductors at the predetermined locations and are of the same metal as the conductors, however, devoid of the one or more additives included in the conductors so as to enhance bondability of the leads thereto, and wherein the leads are bonded to the bonding metal layer at the predetermined locations, and wherein the bonding layer is applied to the conductors prior to a co-firing of the layers of ceramic material and then co-fired along with said layers of ceramic layers or the bonding layer is applied to the conductors and post-fired after an initial cofiring of the layers of ceramic material.

It is respectfully submitted that a multi-layer ceramic structure as now claimed is neither shown nor suggested by either the *Glenn* or *Uchikoba* reference, nor would such be obvious to one skilled in the art without hindsight provided by applicants' own disclosure.

The Examiner alleges that *Glenn* does not explicitly teach that the bonding metal layer is of the same metal as the conductors and devoid of one or more additives and that *Uchikoba* teaches forming a conductive electrode that is formed of gold nickel connected to a gold bump in the structure of the

semiconductor device package. Furthermore, the Examiner alleges that it would have been obvious to one skilled in the art at the time the invention was made to incorporate the gold-nickel to gold connection taught by *Uchikoba* in the structure of *Glenn* in order to enhance the reliability of the bonding during operation and, therefore, the combined structure of *Glenn* and *Uchikoba* teaches a bonding metal layer being of the same metal as the conductors (gold) but devoid of more additives (nickel is taken to the additive).

It is submitted that the position of the Examiner is based upon speculation. As noted in *Ex parte GPAC, Inc.*, 29 USPQ 2d, 1401, 1415 (BPAT 1993):

The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention rests upon the Examiner. *In re Oetiker*, 977 F2d 24 USPQ 2nd 1443 (Fed.Cir. 1992). ... In rejecting a claim under 35 U.S.C. § 103, the Examiner must provide a *factual basis* to support the obviousness conclusion. *In re Warner*, 379 F2d 1011, 154 USPQ 173 (CCPA 1967).... Based on the objective evidence of the record, the Examiner is required to make the factual inquiries mandated by *Graham v. John Deere*, 383 US 1, 17, 148 USPQ 459, 469 (1966)... the Examiner is also required to explain why one having ordinary skill in the art would have been led to modify and/or combine the applied art to arrive at the claimed invention. *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988).

Accordingly, a rejection based on 35 U.S.C. § 103 must rest on factual basis. The facts must be interpreted without hindsight reconstruction of the invention from the prior art. In making this evaluation, all facts must be considered and the Patent Office has the initial duty of supplying factual basis for the rejection. Accordingly, it may not because it may doubt that the invention is patentable to resort to speculation, unfounded assumptions or

hindsight reconstruction to supply deficiencies in the factual basis. See, for example, *In re Warner*, supra.

Accordingly, claim 1 is deemed to be in condition for allowance along with dependent claims 2-4 and 8 which are considered to be patentable for their dependency upon independent claim 1.

In view of the foregoing amendments and remarks, the Examiner is requested to reconsider and withdraw the rejection of the claims under 35 U.S.C. 103 and render a notice of allowance of all claims present in the application.

Conclusion

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is requested to contact William L. Gates (Reg. No. 20,848) at 703- 205-8061 to resolve any issues which remain in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

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Respectfully submitted,

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